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10/039,385	01/03/2002	Thomas Patrick Yohe	S-00014-008	2011

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EXAMINER

WANG, LIANG CHE A

ART UNIT PAPER NUMBER

2155

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/039,385

Applicant(s)

YOHE ET AL

Examiner

Liang-che Alex Wang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2005 and 31 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. Claims 1-19 are presented for examination.

#### *The New Grounds of Rejection*

2. Applicant's amendment and argument with respect to claims 1-19 filed on 5/31/2005 have been fully considered but they are deemed to be moot in views of the new grounds of rejection.

#### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1-7, 9-16, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al., US Patent Number 6,247,059, hereinafter Johnson, in views of Dillon, US Patent Number 6,351,467, hereinafter Dillon.
5. Referring to claim 1, Johnson teaches a method for synchronizing databases among a server computer (figure 2, item 12-0) having a master database (memory 20) therein, and a client computer (Figure 1 item 12-1) having replica database (node-1 is associated with a memory as node-0 as displayed in figure 2) of the master database therein, comprising the steps of:

- a. establishing communication between a server computer having a master database therein and a client computer (Col 2 lines 23-26, figure 1, the node which is multicasting data is viewed as a server computer and the nodes which are receiving data are viewed as client computers);
- b. recognizing a replication request by said client computer for a piece of data within said master database from said server computer (Col 2 lines 54-55);
- c. initiating a registration authorization process of said client computer wherein said client computer is provided with means for accessing multicast updates of said data (Col 1 lines 13-16, members are registered and authorized users); and
- d. accessing a multicast of updated data using said accessing means (Col 2 lines 23-26).

Johnson does not explicitly teaches wherein said server computer initiates a secure session using an authentication process using an authentication session; wherein said accessing means includes a multicast address and encryption key; and a monitoring process on said server computer that recognizes when an update is made to said master database on said server computer and then multicasting said update out to said client computer using said multicast address and encryption keys.

However, Dillon teaches a system for multicasting multimedia content, which sends updated information using a secure cryptographic method including multicast address and encryption key (abstract), and wherein said server computer initiates a secure session using an authentication process using an authentication session (Col 21 lines 27-38); wherein said accessing means includes a multicast address and encryption key (Col 21

lines 9-13); and a monitoring process on said server computer that recognizes when an update is made to said master database on said server computer and then multicasting said update out to said client computer (abstract lines 4-7) using said multicast address and encryption keys (Col 21 lines 39-47).

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate the method of sending updates in an authentication session using multicast address and encryption key because both Johnson and Dillon both teaches multicast data transmission between nodes in a network.

A person with ordinary skill in the art would have been motivated to make the modification to Johnson because having the server recognized updates transmitted to the client in a authenticated session of Dillon would provide client the newest information and also preventing unauthorized access to the information as taught by Dillon (abstract lines 6-7, 15-18, and Col 21 lines 9-13.)

6. Referring to claim 2, Johnson has further taught, the steps of determining a missed multicast of updated data by said client computer (Col 2 lines 44-51, abstract) and initiating a unicast of said missed updated data (Col 2 lines 34-40).
7. Referring to claim 3, Johnson has further taught,
  - a. establishing a connection between said server computer and a plurality of client computers (Col 2 lines 11-17, and Figure 1, multiple receivers).
  - b. recognizing a replication request by each said client computer for a piece of data within said master database from said server computer (Col 2 lines 54-55);

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- c. initiating a registration authorization process of said client computers wherein said client computer is provided with means for accessing multicast updates of said data (Col 1 lines 13-16, members are registered and authorized users); and
  - d. accessing a multicast of updated data using said accessing means (Col 2 lines 23-26).
- 8. Referring to claim 4, Johnson has further taught, wherein said step of recognizing replication requests are for different data for each said client computer, and said registration authorization process includes providing one of identical and unique means for accessing multicast updated data (Col 1 lines 13-16, each member is a registered and authorized user.)
- 9. Referring to claim 5, Johnson has further taught, the step of determining whether to receive said update of said data (Figure 5, steps 110-116, Col 17 line 55 – Col 18 line 2).
- 10. Referring to claim 6, Johnson has further taught, wherein the step of determining is accomplished by maintaining in said client computer information relating to prior updates of said data by said client computer (Col 7 line 63 – Col 8 line 2, previous sequence numbers are the information relating to prior updates.)
- 11. Referring to claim 7, Johnson has further taught, wherein the step of determining is accomplished by maintaining in said server computer information relating to prior updates of said data by said client computer (Col 7 lines 55-62, sequence number associated with current packet sent from the sender are the information relating to prior updates.)

12. Referring to claims 9-15, claims 9-15 encompass the same scope of the invention as that of the claims 1-7. Therefore, claims 9-15 are rejected for the same reason as the claims 1-7.
13. Referring to claim 16, claim 16 describes all the system elements that performs the function as described in claim 1-7, therefore claim 16 is rejected for the same reason as claims 1-7 and 9-15.
14. Referring to claim 18, Johnson has further taught wherein said client computer is further characterized to be a second server (Figure 1, abstract, each node is capable of sending multicast data to other nodes, therefore said client computer could is also a server.)
15. Claims 8, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in views of Dillon and in further views of Bhagavath et al., US Patent Number 6,567,929.
16. Referring to claims 8 and 19, Johnson as modified has taught an invention as described in claims 1 and 9, however, Johnson does not explicitly teach means for determining the rate at which to multicast said data.

However, Bhagavath has taught the RTCP and RTP packets periodically report the sender's rate of transmission to clients (Col 8 lines 19-30)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate the data packet which reports the rate of transmission to the client because both Johnson and Bhagavath have taught invention regarding recovering missed multicast information (Bhagavath, Col 10 lines 34-51.)

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A person with ordinary skill in the art would have been motivated to make the modification to Johnson because having a way to determine the rate of transmission would allow the system to know the pace of work and have a better understanding of the time taken to complete tasks (Col 8 lines 19-30).

17. Referring to claim 17, Johnson has taught an invention as described in claim 1, however, Johnson does not explicitly teach means for encrypting said data and transmitting an encryption key sequence for client decrypting said data.

However, Bhagavath has taught the technique of using encryption and decryption for data transmission between sever and clients (Col 3 lines 33-46.)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate the encryption/decryption techniques to John because both Johnson and Bhagavath have taught invention regarding recovering missed multicast information (Bhagavath, Col 10 lines 34-51.)

A person with ordinary skill in the art would have been motivated to make the modification to Johnson because using encryption and decryption techniques in data transmission would provide a better secured data transmission to prevent hacking and data lost.

### *Conclusion*

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP




§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

19. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.
20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liang-che Alex Wang whose telephone number is (571)272-3992. The examiner can normally be reached on Monday thru Friday, 8:30 am to 5:00 pm.
21. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571)272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
22. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Liang-che Alex Wang   
July 18, 2005

  
SALEH NAJJAR  
PRIMARY EXAMINER